

Claims

What is claimed is:

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1. A method to provide for caller identification using telephony ring signals comprising:
 - a) receiving a telephone number of an expected caller;
 - b) receiving identification of an audio file to play as the telephony ring signal at a telephony device for an incoming call originating from the expected caller;
 - c) creating indicia associating the telephone number of the expected caller with the audio file; and
 - d) sending the indicia associating the telephone number of the expected caller with the audio file to the telephony device,wherein the telephony device will play the audio file as the telephony ring signal upon receiving the incoming call from the expected caller.
 2. The method of claim 1 further comprising receiving a telephone number of the telephony device.
 3. The method of claim 1 further comprising sending the audio file to the telephony device.
 4. The method of claim 3 further comprising encoding the audio file using a compression algorithm prior to sending the audio file to the telephony device.
 5. The method of claim 1 wherein the indicia associating the telephone number of the expected

caller with the audio file includes a location of the audio file.

6. The method of claim 1 further comprising:

- 5 a) receiving a second telephone number of a second expected caller; and
- b) receiving identification of a second audio file to play as the telephony ring signal for an incoming call originating from the second
- 10 expected caller,

wherein the creating step further creates the indicia to associate the second telephone number of the second expected caller with the second audio file.

15 7. The method of claim 1 wherein the indicia associating the telephone number of the expected caller with the audio file comprises a file readable by the telephony device.

20 8. The method of claim 1 further comprising providing a web interface accessible by a web browser wherein the telephone number of the expected caller and the identification of the audio file are received via

25 the web interface using the web browser.

9. The method of claim 1 further comprising generating a profile associating a unique audio file with each of a plurality of telephone numbers of additional

30 expected callers for the telephony device.

10. The method of claim 9 further comprising generating a second profile associating a unique audio file with each of a plurality of telephone numbers of

additional expected callers for a second telephony device.

- 5 11. The method of claim 1 wherein the telephone number is one of the group consisting of an IP address, email address, packet-switched device telephony identifier, and traditional circuit-switched telephone number.
- 10 12. A method to provide for caller identification using telephony ring signals comprising:
- a) identifying a telephone number for an originator of an incoming call;
 - 15 b) selecting an audio file based on the telephone number; and
 - c) effecting playback of the audio file as the telephony ring signal for the incoming call.
- 20 13. The method of claim 12 further comprising providing a plurality of available audio files including the audio file wherein the selecting step includes selecting the audio file from the plurality of available audio files.
- 25 14. The method of claim 12 further comprising:
- a) determining if the telephone number is associated with the audio file within the plurality of available audio files; and
 - 30 b) if the telephone number is not associated with the audio file within the plurality of available audio files, effecting a default ring signal.

15. The method of claim 12 further comprising receiving and storing indicia associating the audio file with the telephone number.
- 5 16. The method of claim 12 further comprising receiving and storing the audio file.
- 10 17. The method of claim 12 further comprising receiving and storing a profile associating a plurality of available audio files with a plurality of expected telephone numbers for originators of expected incoming calls, the profile identifying the audio file and the telephone number for the originator of the incoming call wherein the selecting step selects the audio file based on the telephone number in the profile.
- 15 18. The method of claim 12 wherein the identifying step identifies the telephone number for the originator of the incoming call using caller identification information received during initial reception of the incoming call.
- 20 19. A system to provide for caller identification using telephony ring signals comprising:
- 25 a) a network interface; and
- b) a control system associated with the network interface and adapted to:
- 30 i) receive a telephone number of an expected caller;
- ii) receive identification of an audio file to play as the telephony ring signal at a telephony device for an incoming call originating from the expected caller;

- iii) create indicia associating the telephone number of the expected caller with the audio file; and
- iv) send the indicia associating the telephone number of the expected caller with the audio file to a telephony device via the network interface,

wherein the telephony device will play the audio file as the telephony ring signal upon receiving the incoming call from the expected caller.

20. A system to provide for caller identification using telephony ring signals comprising:

- a) a packet-switched network interface; and
- b) a control system adapted to:
 - i) identify a telephone number for an originator of an incoming call;
 - ii) select an audio file based on the telephone number; and
 - iii) effect playback of the audio file as the telephony ring signal for the incoming call.

21. The system of claim 20 further comprising an additional interface associated with said control system wherein said control system is adapted to receive the audio file via the additional interface from a remote device.

22. The system of claim 21 wherein the additional interface is of a type consisting of radio frequency, optical, infrared, and electrical.

23. A computer readable medium having software to provide for caller identification using telephony ring signals, the software comprising instructions to:

- 5 a) receive a telephone number of an expected caller;
 - b) receive identification of an audio file to play as the telephony ring signal at a telephony device for an incoming call originating from the
 - 10 expected caller;
 - c) create indicia associating the telephone number of the expected caller with the audio file; and
 - d) send the indicia associating the telephone
 - 15 number of the expected caller with the audio file to a telephony device,
- wherein the telephony device will play the audio file as the telephony ring signal upon receiving an incoming call from the expected caller.

20 24. A computer readable medium having software to provide for caller identification using telephony ring signals, the software comprising instructions to:

- 25 a) identify a telephone number for an originator of an incoming call;
- b) select an audio file based on the telephone number; and
- c) effect playback of the audio file as the telephony ring signal for the incoming call.

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25. A system to provide for caller identification using telephony ring signals comprising:

- a) means for identifying a telephone number for an originator of an incoming call;

- b) means for selecting an audio file based on the telephone number; and
- c) means for effecting playback of the audio file as the telephony ring signal for the incoming call.